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ABSTRACT

An experimental language-based program for educating autistic children within a public school system is described. Discussed are the following six program components and their implementation: volunteers and university trainees, parent education and counseling, research, itinerant teaching programs, dissemination, and teacher inservice and visitor programs. (BD)

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The "zero-reject model" in educating autistic children[1]

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ABSTRACT

Autistic children have often been excluded from public school education programs because of the severity of the behavioral disorders which autistic children exhibit and the difficulty school systems would have in handling these problems. The present language-based program was funded as an experimental program to determine whether autistic children could be educated within a public school system and to develop techniques for this education. The components of the program are described as well as their implementation. Future articles will describe the positive results of the program.

Traditionally, children diagnosed as being autistic, that is, with severe language disorders or absence of language, poor social relatedness, ritualistic and stereotypic behavior and intellectual deficits (Simmons and Tymchuk, 1973), have been excluded from public school education programs. The reasons for this exclusion are primarily related to the severity of the disturbance of autistic children. Because of the often severe withdrawal and apparent lack of behavioral control and because of the lack of language and of the great difficulty in training these children to acquire and use language, the amount of and extent of resources needed to provide education for autistic children could not be provided within a public school setting. Instead autistic children were often institutionalized or, if of higher ability with some language, they may be included in classrooms for children. An additional problem related to having teachers who were adequately trained to deal with the severe problems exhibited by autistic children.

The first indication that autistic children could perform meaningful behaviors was established by Ferster and DeMyer (Ferster and DeMyer, 1961 & 1962) who demonstrated that they could be trained to make simple discriminations. Subsequent studies based upon single cases demonstrated that autistic children could develop more complex behaviors including social behavior (Wolf, Risley and Mees, 1964), language (Hewett, 1965), nonverbal imitative behaviors (Metz, 1965), imitative verbal behavior (Lovaas, Berberich, Perloff and Schaeffer, 1966) and social interaction (Tymchuk, Insul and Berger, 1974). Studies such as these demonstrated that under certain optimal conditions autistic children could develop complex behaviors primarily through the use of operant conditioning techniques. In England, Rutter (1967) demonstrated that autistic children could be educationally trained with varying degrees of success depending upon

presence or absence of language. In the United States, Treffert, McAndrew and Driefuerst (1973) demonstrated that autistic children could benefit from educational programs within a hospital setting.

The Los Angeles County Autism Program

The present program was designed to take the results of previous studies in mind in providing a comprehensive educational program for autistic children. The program was established on an experimental basis for three years with funding from federal (Title EHA VI-B), state and county levels. The program is currently in its third year and was originally to serve 20 children with a medical diagnosis of autism established by a independent specialist. In the second and third years 62 children were included within 11 classrooms. There were to be one teacher and one aide to four children with undergraduate psychology students providing additonal help. The program was established on the sites of regular public schools.

Place Figure 1 About Here

Components:

Figure 1 contains a depiction of the components of the program. The program was based upon the philosophy that autistic children were not emotionally disturbed, rather, that they were learning handicapped which affected all areas of their behavior particularly language and socialization. The educational program emphasized the identification of the deficits in language and the establishment of techniques to remediate those deficits including the use of operant conditioning techniques. This model, whereby the technology of behavior modification is used to enhance the learning of cognitive behaviors, also was applied to the other curriculum areas.

The Curriculum component includes:

1. Social-Behavioral: Includes the elimination of self-stimulating destructive and tantruming behaviors as well as the development of appropriate play, peer and social behaviors. By being on a regular school campus, opportunities for peer modeling and integration are possible.

2. Independent Living Skills: Programs are written and implemented to teach skills of toileting, eating, dressing, hygiene and safety.

3. Sensory-Motor: Fine motor and gross motor skills are taught with the assistance of remedial physical education teachers. As a part of this, one physical education instructor is utilizing sensory integration techniques.

4. Cognitive and Academic: The range of programs is from classifying by function, three-dimensional to two dimensional classification by critical features, to reading, math, spelling including integration into regular classrooms in subject areas.

5. Language: A psycholinguistic view of language is implemented in the development of highly structured receptive and expressive programs. These programs range from understanding of single nouns to correct use of pronouns and other higher levels of language usage.

The Volunteer and Trainee component primarily includes psychology students who participate in a practicum course through UCLA with the second author. Volunteers, including parents, as well as student teachers also are included in the program. Each of the volunteers and trainees was given an intensive training program which included how to observe and collect various types of data, how to systematically use operant behavioral principles with the educational programs, to understand the individual programs and how to function within a school setting. Trainees were given the book, Behavior Modification with Children: A Clinical Training Manual (Tymchuk, 1974).

The Parent Education and Counseling component consists of involvement of the parents within the classes as volunteers as well as for carryover of training of the child into the home. There are also parental evening meetings as a group for discussion of difficulties on how to improve communicating between

Figure 1

Components of the Los Angeles County Autism Project

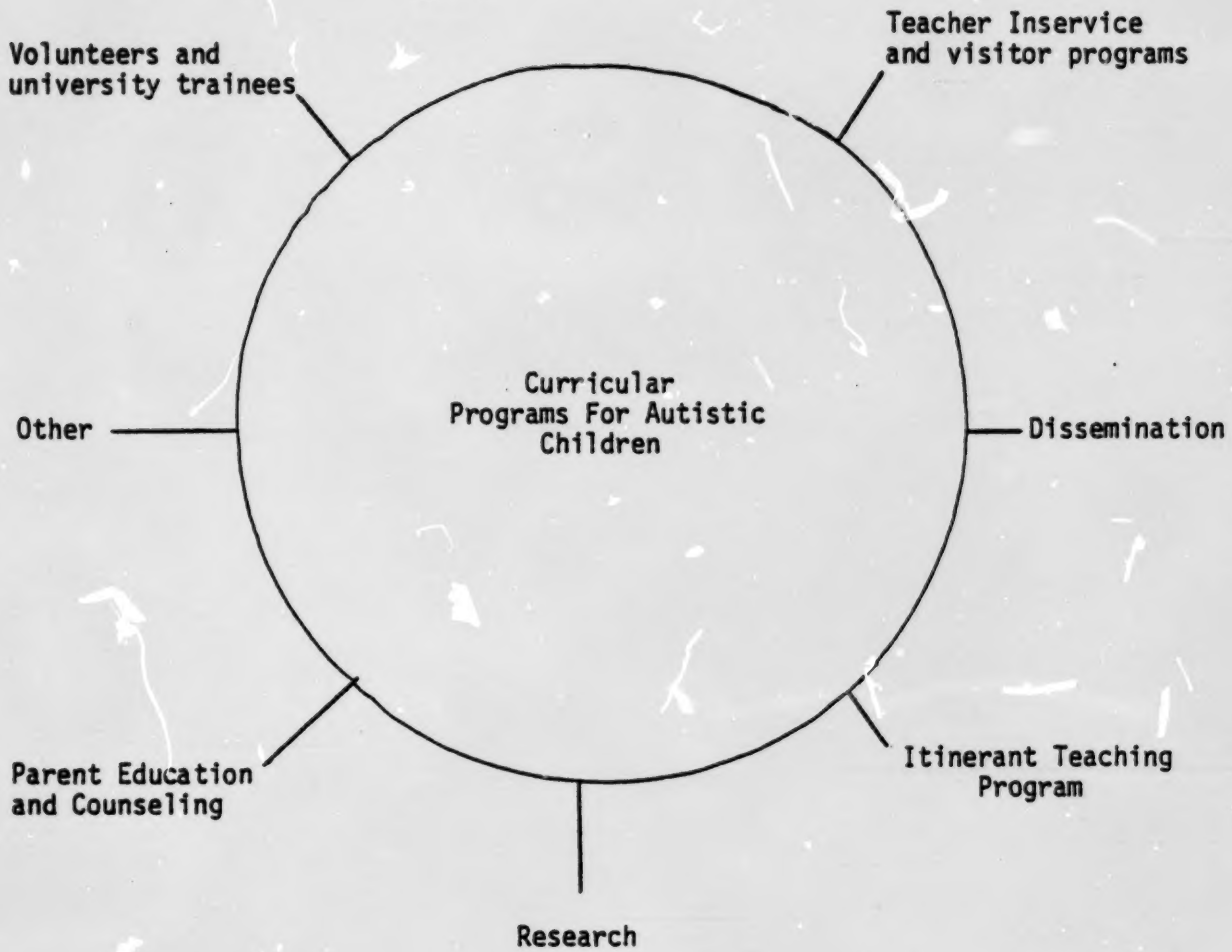
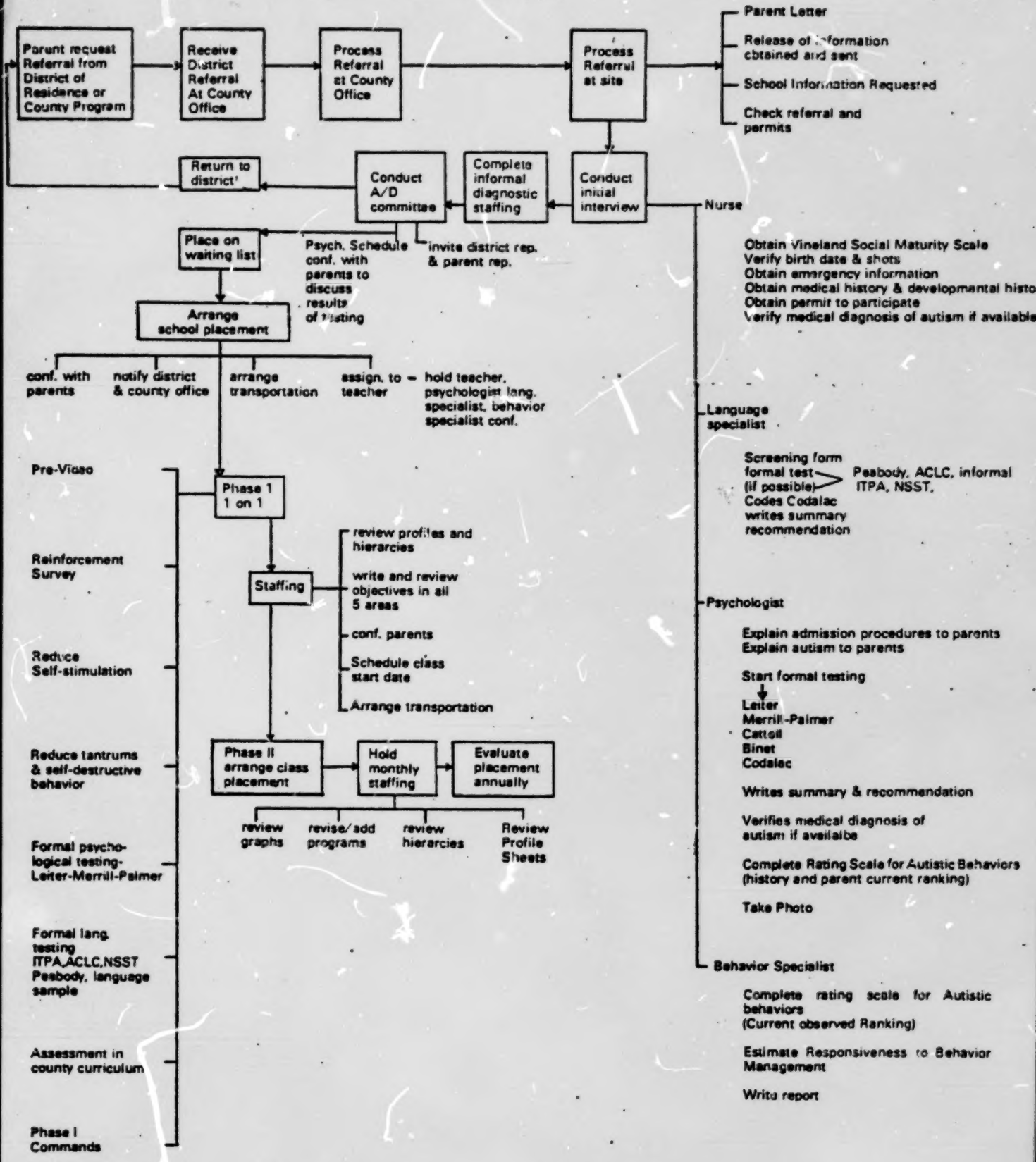


Figure 2

ADMISSIONS PROCESS
L.A. COUNTY AUTISM PROGRAM



a group for discussion of difficulties on how to improve communicating between the school and the parents, for reconciliation of feelings related to having a problem child, for a discussion between parents related to common problems and possible solutions and for conveying information regarding autism.

The Teacher, Inservice and Visitor component consists of providing continual inservice education for the teachers and aides who are in the program as well as using the project for the training of teachers from other programs. There are several levels to this component. Because of the recognized need for additional teachers of autistic children, there is a visitors program for informational purposes. Anyone can attend these programs generally offered on a weekly basis to fifteen people and includes seeing a videotape on autistic children, a discussion of autism in general and specifically of the present program, a visit to the classrooms to observe sessions and a final discussion of issues raised. An evaluation is filled out by each visitor and all of the over 1500 visitors have commented favorably on the program. This aspect of the program is to increase professional and public awareness of autism. A second aspect relates to the use of the program as a practicum site for student teachers who are working toward their credential for teaching the severely handicapped. A third aspect relates to providing additional training for teachers from other programs who may have an autistic child in their classes.

The Itinerant Teaching component was established to provide consultant services to classes which may include an autistic child. The itinerant specialist and a trainee, visit these classes on a rotation basis to help set up programs for these individuals, to provide support and training for the teachers and to identify children for possible inclusion in the autism program. This latter information provides data for additional programs. Teachers in these classes also visit the autism program for further training.

The Dissemination component is a critical one since aspects of the program can be used by others. To further this dissemination, the visitors program was established, the specialist and consultant staff presented papers to professional groups and conferences, workshops were given, a brochure and videotape prepared and articles are being prepared. The curriculum and techniques that were developed will be part of a handbook as part of the Los Angeles County curriculum project.

The Research component assesses the effectiveness of the educational programs. Each year the children are evaluated on standardized psychological and language tests at the beginning and end of the school year. To aide in the analysis of these results, a special coding form was developed for use in computer analysis. This form includes historical and other relevant data and provides a summary printout sheet for information. Computer programs were written to analyze test scores as well as for item analysis. In addition language samples were taken and a computer program developed for coding and analyzing these data. Data on individual weekly curriculum programs are also collected and plotted to determine the child's weekly progress. These data are presented to the independent audit team and will be reported in articles and in the final report. Finally, several research projects were initiated including two studies of the effects of auditory amplification and learning with autistic children and the use of normal peers for tutoring.

In addition to the above components, there are other aspects including a counseling group for the normal siblings of the autistic children and the use of normal peer tutors. Since siblings have many questions about autism in general and about their autistic sibling specifically, two group sessions were run to respond to these questions. The results of these two groups will be reported in a future paper. Also, since the autism project is on the grounds

of a regular elementary school, several teachers were approached to allow normal peers to help with the autistic children. These peer tutors are especially helpful in promoting the socialization of the autistic pupils.

Place Figure 2 About Here

Program Implementation:

Figure 2 contains a summary of the process for the implementation of a child's program. During the first year, upon referral, the child was seen by a child psychiatrist to establish a formal diagnosis of autism using the criteria listed above. In the subsequent two years the diagnosis was established by the school psychologist.

After establishing the diagnosis of autism the child is then accepted for placement, placed on a waiting list or referral elsewhere. If the child is accepted, the appropriate medical, history and permission forms are completed by the parents and the school nurse. The child is then videotaped by himself or herself, with a parent and with the possible prospective teacher. This tape is to establish baseline for means of comparison as the program progresses as well as for dissemination purposes. Before the child can then be given standardized psychological and language tests, his interfering behaviors, if any, are reduced and some attentive behaviors established by systematically using operant learning procedures. The child is then introduced to the classroom and the teacher for one-on-one training. The child's educational objectives are established in each curriculum area and implemented using operant principles. The parents fill out a reinforcement preference survey. Reinforcers are individualized for each child and are on a continuum from extrinsic (primary and secondary) to intrinsic and are varied to prevent satiation. Once the child's program is progressing, he is introduced to the class where there is a total of four children. Educational program changes are carried out at detailed weekly staff meetings with the teacher maintaining a program binder

for each child. Teachers also meet to share program techniques. In addition to the classes for autistic children, there is a class of aphasic children as a transition class. Autistic children who are considered ready for movement to aphasia classes, are first placed in the aphasia class and then transferred to the regular aphasia program.

Discussion and Conclusions

The present article was a description of an educational program established to demonstrate that autistic children can be educated within regular school systems. The program was established using the results of previous studies on autism as a basis and then developing a comprehensive program. Preliminary results indicate that autistic children progress well within such a program. More detailed results will be reported elsewhere. (e.g., Tymchuk, Needels, Sivertsen and Hirsch, 1976).

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